
Joint Witness Statement Wastewater

Sunfield [FTAA-2503-1039]
20 November 2025

Facilitated by: Dave Serjeant, Planner and Independent Planning Commissioner
Recorded by: Nick Freeman, Planner, Tattico

Attendance

The list of participants for this expert conferencing is included in the schedule at the end of this Statement.

Basis of Attendance and Environment Court Practice Note 2023

All participants agree to the following:

- (a) The Environment Court Practice Note 2023 provides relevant guidance and protocols for the expert conferencing session;
- (b) They will comply with the relevant provisions of the Environment Court Practice Note 2023.

Matters Considered at Conferencing – Agenda and Outcomes

As directed in Minute 13, the experts are to consider these questions “without reference to Watercare’s policy position of not servicing rural zone land, and without reference to supplying other live-zoned land”.

A. Has the Applicant complied with paragraph 14 of Minute 13?

Response: **WM:** Information sent on the 6th November to Russell Butchers.

AD & MU & SM: Confirmed.

B. Is there capacity in the existing bulk and local wastewater networks (considered separately) to accept flows and loads generated by the proposed development?

Response: **AD & MU** note that the planned diversion of the Hingaia Wastewater Pump Station (WWPS) from the southern interceptor currently forecasted for completion in 2029 will divert up to 100L/s (equivalent to 2400 DUE) away from the southern

interceptor which is the bulk infrastructure required to service this development. Anticipating this upgrade will happen will enable growth within the southern interceptor catchment. This growth could include the 70L/s from the FUZ land part of the current development with longer-term upgrades to the southern interceptor being required for the whole development. These are not currently programmed nor understood.

WM notes that preliminary investigations were undertaken prior to the application in April 2024, whereby Veolia, acting on behalf of WSL, has formally confirmed that the existing WSL transmission network can accommodate a Peak Wet Weather Flow (PWWF) of approximately 70 L/s from the Future Urban Zone (FUZ) land.

JP considers that some amount capacity should be available now in the existing bulk network for the proposed development on the basis that WSL's Asset Management Plan (AMP) 2021–2041 identifies the Future Urban Zone (FUZ) land within the Sunfield development as being anticipated for development between 2018 and 2027. In addition, the AMP indicates that a significant portion of the remaining rural area of the site falls within WSL's current service area. WSL's 2025 business plan also identifies a significant part of rural land within Sunfield as current area of service.

AD notes that regarding the Mangere wastewater treatment plant, if we only consider this development and no other live zone development within the catchment it services (which is 1.2 million people), then there is capacity available for this development.

C. If not:

With a gravity system, and not the low pressure system (LPS) as currently proposed:

b. What upgrades to the bulk and local wastewater network are required to service the site?

Response: **SM** notes that there is no existing local network. The developer will be responsible for design and construction of the local network. (Commencing at the Takanini branch approximately 500m from the site.)

AD & MU notes that in terms of the bulk network, in the near term the Hingaia WWPS is being diverted away from the southern interceptor, this will divert up to 100L/s away from the southern interceptor. Beyond this, upgrades to the southern interceptor are required. These are not programmed.

AD & MU: Indicatively to understand the required upgrades of the southern interceptor we would need 18-24 months to undertake detailed modelling, optioneering and concept design to gain certainty of what the required solution would be and the approximate cost and time frame to deliver it would be. The time frame to undertake detailed design, construction and commissioning would depend on the scope of the solution however could take anywhere in the range of 5-8 years. This would all be dependent on the availability of resource and funding.

1. Are those upgrades planned and/or funded?

Response: **AD & MU** notes that in the near term the Hingaia WWPS is being diverted away from the southern interceptor, this will divert up to 100L/s away from the southern interceptor which is planned and funded. Beyond this, upgrades to the southern interceptor are required but are not planned nor funded.

2. When are those upgrades expected to be commissioned?

Response: **AD & MU** notes the Hingaia WWPS diversion is expected to be commissioned in 2029, there is currently no time frame for upgrading the southern interceptor.

3. How much of the site can be serviced in the interim?

Response: **AD & MU** advise that there is no number at this stage regarding a hypothetical scenario. It is unlikely this will be zero, however no number can be provided until modelling is completed. Assessment is normally driven by a proposal that is given to Watercare. Watercare is not currently declining development in this area based on bulk capacity.

With the low pressure system as currently proposed:

- a. What upgrades to the bulk and local wastewater networks are required to service the site?

Response: **WM & JP** consider the theoretical flow from an LPS would be significantly less than a gravity system and according to our calculations the flow would be less than 70L/s (this relates 3400 dwellings units + 50 ha of industrial and retail land) for the entire site (FUZ land and rural mixed land).

RW states that recorded data at Kahawai Point, the average recorded flow is 130L/person/day. Flows that have been measured have been consistently less than the Code of Practice of 216L/person/day (99.4th percentile) and 180L/person/day (95th percentile). An LPS would work much better when flow is to a terminal pump station.

Contrary to the above statement, **MU** states that from our current network at Kumeu Huapai we currently experience peak flows of 37L/s (without flushing water) with 2200 LPS units. This network is the closest comparable development with LPS that Watercare operates.

RW notes that flows from pressure sewer systems are not constant and high instantaneous peaks can be experienced over short periods when not centrally controlled.

All experts agree that flows may fluctuate to be slightly more or slightly less than the Code of Practice.

WM & JP consider that a terminal pump station could give control of the fluctuations of discharge to Watercare if a LPS was used.

WM & JP consider that theoretically the site could be serviced in its entirety, still dependant on the 2029 Hingaia WWPS upgrade but no long-term upgrades required (subject to Watercare modelling and confirmation).

AD & MU notes that upgrades could potentially be less or not required using an LPS, subject to confirmation.

1. Are those upgrades planned and/or funded?

Response: n/a

2. When are those upgrades expected to be commissioned?

Response: n/a

3. How much of the site can be serviced in the interim?

Response: **AD & MU** refer to their answer to same question in section B(3) in relation to a gravity system.

D. Can the proposed LPS system be managed to avoid impacts on the bulk and local wastewater networks?

Response: In addition to comments made above about capacity, **RW** considers that a pressure sewer system can be designed to minimise retention time and risks associated with septicity and odour. A correctly designed sewer system should reduce impact on the bulk sewer system. The negatives of pressure sewer systems when not designed correctly, risks septicity and odour.

MU & AD advise based on experience with the Huapai Kumeu Riverhead (KHR) LPS system, which was designed to mitigate septicity and odour, these issues have not been adequately mitigated and Watercare continues to experience challenges. Dosing and flushing are currently being used to mitigate this. However, odour and high H₂S levels persist in the down-stream network and locally for customers. High H₂S levels down-stream will exacerbate corrosion risk and health and safety issues reducing asset life.

RW notes that the KHR system was designed 15 years ago, and a lot has been learnt in that time. Chemical dosing is a potential solution to odour and septicity issues. **RW** considers there are technical solutions to the design of LPS system to overcome these issues.

E. Is the proposed LPS system considered appropriate in the circumstances?

Response: **WM & JP & RW** consider that they have investigated gravity networks and believe that the LPS is the most feasible outcome. This is based on the previous information supplied (e.g. the response to Watercare's comments). Principle environmental parameters in selecting the LPS option are poor peat ground conditions, flat topography, high ground water table, and also in reference to down-stream capacity issues (decreased impact on down-stream networks) and also based on relevant experience of similar systems in the area.

SM considers should a gravity wastewater network be demonstrated as unachievable to service the site, then an LPS could be considered. And notes that bore hole logs, geotechnical analysis, resulting proposal for gravity network is required to confirm the validity of the statement above.

F. Identify and describe any precedents for the use of LPS for large scale projects within New Zealand and in comparable locations overseas.

Response: **WM** notes the KHR, and Millwater LPS projects, both being between 2000-3000 units. Christchurch LPS project with 4000 units.

RW refers to "*South East Water's Peninsula ECO Project is a new pressure sewer system installed along the southern Mornington Peninsula. It will replace septic tank systems and treatment plants on 16,500 properties.*" [Peninsula Eco frequently asked questions](#) (note: Mornington Peninsula is in Victoria, Australia)

AD & MU notes that KHR and Millwater are not good examples for LPS systems for the reasons outlined in previous questions regarding KHR. Also noting servicing challenges relating to individual customers accessing their private pump station and waiting 2-3 days for servicing.

Confirmed in person: 20 November 2025

Expert's name and expertise	Party	Expert's confirmation
Will Moore (WM)	Sunfield	Yes
Jignesh Patel (JP)	Sunfield	Yes
Robert White (RW)	Sunfield	Yes
Andrew Deutschle (AD)	Auckland Council	Yes
Maria Utting (MU)	Auckland Council	Yes
Sanjeev Morar (SM)	Veolia	Yes

Observers: Ian Smallburn (Planner, Sunfield) and Karl Anderson (Planner, Auckland Council)

Note: Auckland Council as a Party includes all constituents of the Auckland Council 'family' of organisations.